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Gas Journal

VOL. 308 113th YEAR LONDON, NOVEMBER 1, 1961 No. 5122 PRICE 1/9

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Gas Journal

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CONTENTS

EDITORIAL COMMENT

Engineering Research Receives Recognition - - 181
The French Gas Industry, 1960 - - - - 182
Chance or Design? - - - - - - - 182
Refrigerator Sales - - - - - - - 182
The Agricultural Load - - - - - 182
Revolutionary Appliances - - - - - 183
Briefly - - - - - - - - - 183

TECHNICAL RECORD

Wanted—Cheap Gaseous Fuel. By W. F. S. Howell 184

NEWS SUPPLEMENT

New West Midlands H.Q. Model - - - - 188
Lurgi Process and Methane - - - - - 188
Commercial Managers See Research - - 189
Yorkshire Juniors - - - - - - - 189
Self-help Scheme for Gas Board Pensioners - - 190
Showhouses Use Gas Appliances - - - - 190
£188 mill. Gas Investments - - - - - 190
Automatic Gasworks - - - - - - 190
Gas Heats Water For Tea - - - - - 190
Personal Notes - - - - - - - 191
Trade Notes - - - - - - - - 191
Coming Events - - - - - - - 191

GAS IN INDUSTRY SUPPLEMENT

Editorial: Two Northern Exhibitions
AC-Delco Give Gas a Big Plug
North Western Board Shows How Gas may be Used to Serve Industry
Fuel and Power for Industry Exhibition

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Publishers' Notice, See Page 170, October 25, 1961

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Gas Journal

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Engineering research receives recognition

MAKING the best and most efficient use of scientific manpower is one of the most pressing tasks facing this country at the present time, and the solutions to the problems involved have generally been thought to lie in a better trained and more abundant supply of able scientists entering industry each year. However, we now understand that in the course of this decade the numbers of such men and women coming forward may exceed the number of jobs available.

Whether this is likely to be the case or not, it is very necessary for the scientific manpower to hand at present to be used with the greatest possible efficiency, and the type of work to be carried out should in every case be carefully chosen to make the best use of available talent and training.

In the engineering field, the extent to which research plays an important part may not always receive the same publicity and attention from the Press as does some startling 'break-through' in the world of applied science, but our attention was recently drawn to this particular branch of research by this year's President of the Institution of Mechanical Engineers, Sir Kenneth Hague, in his presidential address, which he called 'Co-ordination of Engineering Research and the Conservation of Scientific and Technical Manpower.'

The importance of well directed research is commonly accepted, but perhaps many outside industry may not attach to it the degree of importance it merits. For the far-sighted industrialist, it represents the only way Britain can retain its industrial position in the world, and so in the view of many people, industrial research and development should have the first call on scientific manpower. It is hoped, however, that sufficient able men may be retained to staff university posts, and that the schools at least will not be starved of good science masters able to inspire the nation's youth to take up science, engineering or technology as a career.

The setting up of a research department by an engineering firm clearly depends on the outlook of the board of directors, who may be unwilling to spend the sums involved, or be unaware of the importance of the work. If the company is as yet small but willing and eager to apply new methods, the board may prefer to join its industry's research association.

Sir Kenneth, who is chairman of Babcock and Wilcox Ltd., clearly understands all that is to be gained from engineering research, but he also knows the kind of weakness which may vitiate the whole effort.

The great value of what he calls 'company' research, as opposed to that done by a research association, is that it can be secret. Its results may well give an individual company a short lead over competitors, and do so more satisfactorily than by taking out a patent.

For such a lead to be possible there must be good co-ordination between the research director, who should be a first-class scientist, his board, his colleagues in the company and his fellow scientists. He also needs to be fully acquainted with all other work going on in his field of investigation. The research director needs to be a good administrator too—perhaps an all too rare combination, but of quite outstanding importance if the existence of a research department set up unwillingly is to survive.

Both the type of man taking up research and his training must be carefully considered, and it would seem that the young man straight from the university may not be quite satisfactory. He may be an able scientist and his knowledge of research techniques may be of a high order, but this may not be enough. A period should be spent outside the laboratory in the works, or wherever is the best place to find out the details of the particular industry which the graduate is entering.

A comparison is often made between the number of engineers and scientists proportionately employed in industry in America and in Britain, always to Britain's disadvantage.

Sir Kenneth reveals the surprising fact that in America some 80% of the totally scientifically trained manpower are engineers. In Britain the ratio of engineers to scientists employed in industry is 2:1, but in America it is 3:1; this demand in America for engineers indicates a desire for the rapid practical application of the results of research.

These are particularly valuable points, we feel, since though British scientific discoveries are generally first rate, the value of their application is not always realised. The importance of the development engineer, backed by a first rate research organisation, is very great indeed, and his work in industry, including our own industry, will, we hope, get the recognition it deserves.

The French gas industry 1960

THE overall picture of the French gas industry, as shown in the recently published 'Gaz de France; Statistiques 1960,' is the first intimation of the detailed structure of the industry there, and its organisation.

Detachable maps included with the main volume—a book of 97 pages—show how the country has been divided into 'groupes gazières,' and the proximity or otherwise of these groups to the feeder main from the natural gas wells at Lacq. A particularly interesting point emerges here, that the supply of natural gas to Gaz de France is from the underground storage at Lussagnet, north-east of Lacq, and only the supply of gas in the south-west of France is taken directly from Lacq.

Centred on Bordeaux to the north-east and Toulouse to the south-east, this region appears to be controlled independently of other parts of France. These maps also show the progress in the laying of the feeder main which has now reached Vannes in Brittany to the west, Dijon, Lyons and Le Péage to the east and Paris to the north.

To be able to appreciate fully the way the statistics have been laid out, this background needs to be grasped; so also does the great use being made of both pure propane and propane-air. The number of gasworks (usines à gaz) in production appears to be very small, and coke oven plants supplying the industry are only to be found in certain areas.

The 'groupes gazières' are subdivided into 'directions régionales,' of which details are given for the year under review. As well as a small map of each area covered by the subdivision, on which is shown the type of gas supplied by each individual undertaking, are included graphs showing the increase in total sales—domestic, commercial and industrial sales are shown separately—over 1947.

Such information seems at first to be a little alarming in its detail, but it has been so clearly set out that this does not prove to be the case.

Taken over the country as a whole, the history of Gaz de France since 1947 has been one of consolidation followed by unchecked expansion. Total sales have increased from 9.361 mill. thermies in 1947 to 17.117 mill. thermies in 1960, a rise of 82%. In the domestic field, sales have risen 53% and to commercial and industrial consumers 148% and 242% respectively. The increase in actual industrial production is itself only 157% above the 1947 figure.

Clearly Gaz de France has made full use of all the modern resources of gas production and distribution, and brought them to bear on the expansion of France's gas industry, but there may well be a great deal more to be done if it is to be as highly integrated as the British industry. France, however, is a larger country than England, and the extension of the present means employed may well overcome most of the gas supply problems facing it.

Chance or design?

AS readers will know, we have in the past wondered whether the Council of Industrial Design had some particular dislike of our industry that gas appliances made such a poor showing in the Design Centre and in similar showcases for products of 'good' design.

We have just examined the first edition of 'The Design Centre Book,' 50,000 copies of which were on sale on October 9, at 3s. per copy. This is a 108-page book, admirably produced and lavishly illustrated, which shows and describes a wide range of household products, as well as giving information about the Council's services to retailers, buyers, manufacturers, designers and the public.

How does gas fare? Ascot Gas Water Heaters Ltd., have a 715 balanced flue multipoint and a FA/2 double burner hotplate, while Radiation New World Ltd., boast a Cadet 32A cooker and a glimpse of a split cooker in an exhibition kitchen setting. And that is all. Electric cookers predominate; electric refrigerators have a monopoly. There is one oil-fired boiler, a paraffin heater and several solid fuel appliances.

No gas heating appliance appears (Cannons, nevertheless, have a page advertisement, as does the Gas Council), although it may be that the latest room heater models arrived on the scene too late for consideration.

The evidence is much too slender to suggest any real discrimination against gas, but, when one considers the technical problems which have to be overcome in designing an attractive gas fire, boiler or cooker, it does seem to us that the industry gets scant recognition of the skill—and, we might say, artistry—with which it surmounts these difficulties.

Refrigerator sales

NOBODY seems to know exactly what is happening to the refrigerator market, which is proving to be a great deal more fickle than the substantial sales potential would suggest. Clearly weather, purchase tax and hire purchase restrictions are not the only factors governing sales; nor, to judge from the gas industry's experience, is price.

Figures covering total refrigerator sales during August have just been delivered. Apparently deliveries of British-made domestic models to the home market totalled 52,547. Although this is a decrease of 2·6% on the same month last year, when deliveries totalled 53,930, there is a steady demand for domestic refrigerators at the present time. Total deliveries to the home market during the first eight months of this year are 695,224.

Deliveries to overseas markets during August totalled 7,458. This is a drop of 2·5% on August 1960, when export deliveries totalled 7,649.

The agricultural load

WHAT is happening to the gas load resulting from the supply of gas to the farmer? Despite the presence of Gas Council stands at the Dairy and Smithfield shows, and gas participation in most of the major agricultural shows, we seem to hear very little these days about installations in dairies, poultry farms, and the like. Does this mean that we are gradually surrendering this business to electricity and oil, both of which industries have devoted a great deal of energy to building up their rural business?

The gas stand at the Dairy Show, held at Olympia last week, certainly put all the emphasis on domestic utilisation.

Home service advisers from two area boards—North Thames and South Eastern gave daily demonstrations in a model kitchen—and slices of meat such as pork and veal roasted on a spit were offered to visitors to sample. The preparation of small pastry dishes will illustrate the use of controlled burners.

The demonstrations were held in co-operation with the British Farm Produce Council, who arranged a special display of food on the stand. Appliances on show included a wide range of gas cookers, refrigerators and water heaters; three new space heaters were a feature of the exhibit.

Revolutionary appliances

REVOLUTIONARY gas appliances incorporated in the Advance Home which was sponsored by the American Gas Association and *Parents* magazine and which was exhibited at the Texas State Fair recently, are described in the October issue of the Association's journal.

The ' air-cushion ' gas range is so engineered that air is forced up through a central burner duct to spread into a layer between the flame and the bottom of the utensil. The range is capable of maintaining temperatures low enough to cook an egg in a paper plate or to melt chocolate in its own wrapper without burning the paper. The high-speed oven generates infra-red rays by heating of a ceramic tile element by gas combustion. Reflected by a shiny aluminium lining, the rays heat only solid objects—namely, food—in the oven, cooking much faster than is possible in conventional ovens. The flameless gas barbecue employs the ' catalytic combustion ' principle; the unit is portable, being mounted on a wheeled cart and employing plug-in connections to a gas outlet.

The gas dishwasher has its own thermostatically controlled gas water heater delivering water at 180° through radial wash arms to complete a washing cycle in 32 minutes. It is designed to fit into a built-in cabinet arrangement.

The infra-red patio heater operates on the same principle as the infra-red gas oven. A swivel burner mounted on a permanent stand is connected to a gas outlet, by a plug-in coupling. The infra-red wall heater may be either vented or unvented, recessed or attached, and operates automatically.

The gas refrigerator features automatic ice maker, automatic defrosting of refrigerator section, separate freezer compartment, moist-cold section for fresh food storage, and glide-out shelves.

The gas air conditioner is an add-on unit for use with existing heating systems; in the Advance Home, it is coupled with a gas thermoelectric furnace. The whole-house humidifier, also coupled to the gas furnace, is the size of a small suitcase, and can put up to 18 gal. of moisture into house atmosphere in a day.

Thermoelectric power by means of a type of generator is a feature for which the gas furnace was designed, to be installed when available. The unit powers the furnace blower fan, and perhaps other electric appliances, with current generated by gas heat from the furnace itself.

As though all this were not sufficiently remarkable, there is the gas-operated plumbing-less toilet which converts waste matter at high temperature into odourless carbon dioxide, water vapour and a slight ash residue. We note, not without relief, that ' Dependable safety features are incorporated ' !

Health Conference for Executives

By the very nature of their jobs executives seem less likely to enjoy good health and long life than most people. For them the third Health Conference for Executives, to be held at the Connaught Rooms, London, on November 30, should be of particular importance. The eight scheduled addresses range over a very wide field and the four-guinea fee covers lunch and a full report of the proceedings. Details from the Chest and Heart Association, Tavistock House North, Tavistock Square, London, W.C.1.

BRIEFLY . . .

Happy landings

We in this country tend to associate outdoor gas lighting in America with the slightly gimmicky use of lamps in gardens and as external home lights. That there is a much more practical facet of the American gas industry's ' new ' load is shown by a recent report of the introduction of the *third* gas-lit airport. The first two were in Arkansas, and the latest at Syracuse, Kansas.

Cashing in on the Trad Fad

Knowing the North Western Gas Board to be particularly ' with it ' so far as publicity techniques are concerned, it was no very great surprise to find that their home service advisers had introduced a ' Jazz Evening.' Held in the demonstration room at Bury Gas Service Centre, the event saw teenagers dancing to records, entering wholeheartedly into a spaghetti-eating competition and cooking their own suppers on the latest gas appliances. Now ten more such evenings have been arranged throughout the area and more young people will come to realise—if they do not already know it—that Mr. Therm is no square !

Engineering Materials conference

More and more exhibitions these days seem to be harnessed to a conference, and the Engineering Materials and Design Exhibition, to be held at Earl's Court from November 13-18 is no exception. The engineers, scientists and engineering designers who will come as delegates to the conference will be able to hear 22 separate lectures on new developments and techniques. We note that the lectures include ' Influence of Corrosion on the Design of Chemical Plant ' by E. Warde, of Henry Wiggins & Co. Ltd., and a number of others which may well be of interest to industrial gas engineers.

Bone of contention

Meter readers and others who know what it is to find some well-covered part of their anatomy clenched in the slavering jaws of an over-zealous housedog may take heart from the news that *Emgas* magazine has published an article on do's and don'ts with dogs by a former chief veterinary officer for the R.S.P.C.A. We repeat, they *may* take heart. Or, like us, they may find the cool courage called for just a little too much!

Dame Vera

Those who remember with affection the personality of Dame Vera Laughton Mathews, the first and only holder of the title Adviser on Women's Affairs to the Gas Council, may be interested to learn that the £1,556 subscribed to the Association of Wrens' memorial to Dame Vera is providing an annual award for the higher education of daughters of ex-Wrens, a portrait, and the Mosaic which was blessed in Westminster Cathedral on Saturday.

From the President's address to the Manchester District Junior Association of Gas Engineers.

Wanted—cheap gaseous fuel

By W. F. S. HOWELL, ASSOC.M.C.T., M.I.GAS E., M.INST.F.,
GROUP INDUSTRIAL ENGINEER, MANCHESTER GROUP.

IN 1945 the Heyworth Committee made its report on the gas industry and the result of its recommendations was the biggest change that had taken place in our industry—nationalisation. Arising partly out of this change we have seen many advances during the past 12 years.

But neither have our competitors been standing still. They too have improved their production efficiency, improved and extended their distribution systems, increased the range and improved the performance of their appliances and considerably extended their sales drive.

This is normal competition, but unfortunately for us it has not been an even competition since the gas industry has some special handicaps to carry. First, the price of our main feedstock—carbonising coal—has increased far more rapidly than have other raw fuels or feedstocks for our competitors, and secondly, the large re-housing programme has meant the clearance of many existing houses where gas was used not only for cooking and wash boilers, but in many instances for lighting. Many of the tenants of these houses are moving to new housing estates where in some instances gas services are not even available.

Piped gaseous fuel preference

In other countries, including the United States, Canada, Italy, France and Russia, in which supplies of natural gas have been found, the demand from consumers has shot up, proving that users prefer a piped gaseous fuel when the price is sufficiently attractive.

If we are to keep pace with these other countries, particularly those forming the European Common Market, it is highly desirable that we too have a supply of cheap gaseous fuel.

In its conclusions the Select Committee on the gas industry, under Sir Toby Low, acknowledges the achievements made by the industry consequent upon nationalisation; it refers to the changes during recent years in the fuel situation and the number of factors acting adversely against gas, and reference is made to financial results and capital expenditure, but then follows:

> 'In practice, the key to success must lie in the ability of the gas industry to compete. Your Committee is in no doubt that in the domestic, industrial and commercial market there will be a place for gas for many years. How large that market will be must depend on the price of gas, and this in turn will depend mainly on the cost of production.
>
> 'If gas is to hold its position as a fuel, it is crucial that the cost of production should be reduced. New processes need to cost at least 4d. per therm less than the average cost of making gas in a carbonisation plant. This reduction of about 30% in costs must be made quickly and on a large enough scale to make an early effect on the average national price of gas.'

The Committee goes on to discuss how this reduction in cost of production is to be achieved; it suggests the methods which have been considered by the industry over the past few years—large scale Lurgi process and methane importation—and that such large scale gas production should be on a national basis rather than by individual area boards. It also advocates greater expenditure on research.

If these recommendations are implemented they are likely to have a profound effect on all our members.

With the most efficient planning and the greatest good fortune it will be some time before we can hope that these proposed new sources of gas supply will appreciably affect the price of gas.

Competition is nothing new to the gas industry — it has always been there and will always continue to be there, and over the years the gas industry has always continued to meet the competition and continued to expand.

In the last few years, however, competition has considerably stiffened. Though at vesting coal and oil were both in short supply, they are now generally freely available. Coal for gas making, however, is still in short supply, and in the past ten years the price to the gas industry has increased by over 110%, while that for electricity generation by only 75%, and fuel oil by only 36%—apart from the recently introduced increased duty of 2d. per gal. The need to replace obsolete plant and to make good for the enforced lack of expenditure during the war years has caused a sharp increase in capital charges. Considerable improvements in manufacturing efficiency and productivity have, however, prevented the price of gas rising as steeply as coal.

A new competitor is now entering the field—liquefied petroleum gases, l.p.g., collectively applied to propane and butane. By the supply of l.p.g. in bulk—delivery by tanker and storage in pressure vessels at the users' premises—its price is much more competitive with that of town gas.

New challenge

This is a new challenge, and it is the first time that we have had to face another gaseous fuel with many of the advantages of town gas, offered at a comparable price. Though there may be problems associated with its storage and safety, it has a low sulphur content, and for an extra charge a special quality of reasonably constant composition is available.

How best can we ensure that the demand for town gas continues to expand against the formidable array of competitors with which it is faced?

The main tasks which gas tariffs present to the industrial gas engineer are twofold. First he has to persuade industrialists that the true cost of a fuel is not its basic cost per therm, but the overall cost per unit of production perfectly treated, and that full consideration should be given to savings in capital costs, labour charges, mainten-

ance costs, saving in floor space, quality of product and freedom from rejects.

Secondly he has to persuade his other colleagues in the gas industry that the average price per therm received from any particular classification of consumer is not *per se* an indication of the lucrativeness of that particular load, but that consideration must be given to all the other factors involved, including incidence and magnitude of the load, reading and collecting charges, and subsidies, if any, towards service pipes, installation and maintenance, and to point out that far from the income from the domestic load subsidising the industrial and commercial loads, the boot is generally on the other foot.

In formulating new tariffs the Board has had to bear in mind the following requirements:

1. Their obligations under the Gas Act to show no undue preference to any class of consumers.
2. The necessity of balancing their accounts.
3. Their obligations to existing consumers.
4. The need to expand the sales of gas.

Three courses

A two-part tariff with a fixed standing charge and a relatively low commodity charge gives a very rapid fall in the overall charge per therm. If the commodity charge is to be sufficiently low to attract a considerable amount of new business and yet not involve a Board in an appreciable loss of existing revenue, three courses would apparently be open:

1. A compulsory two-part tariff with a realistic standing charge to ensure that all consumers are remunerative.
2. An optional two-part tariff with the fixed charge varied according to existing consumption.
3. A two-part tariff available only to a single class of consumers with a limited consumption range.

The first is logical and equitable, but in the past where boards or gas undertakings have attempted to introduce compulsory two-part tariffs there has been such an outcry of public opinion, mainly, of course, from the unremunerative consumer, that the idea has had to be withdrawn or modified.

The second form of two-part tariff with a varying standing charge according to consumption range is almost impossible to administrate for all classes of consumer without either grave anomalies arising or a large fall in existing income, otherwise the standing charges would have to be automatically reviewed. The third form of two-part tariff is the one usually adopted.

Some two years ago the North Western Gas Board introduced two forms of optional two-part tariff for domestic consumers only. These are undoubtedly proving a powerful selling aid in expanding the sales of gas particularly in the domestic space heating field.

When, with new forms of gas production, we achieve an appreciable reduction in the cost of gas—say the average price reduction of 4d. per therm referred to by the Select Committee—it would undoubtedly offer a wonderful opportunity for the industry to review all its tariff structures enabling all classes of consumer to be made remunerative and with a powerful aid to salesmen to increase further gas sales.

In buying any commodity two of the main considerations are generally quality and price.

Town gas is the only fuel or heating medium which has to conform to statutory controls of minimum calorific value and absence of hydrogen sulphide. For a long time the gas industry has discussed voluntary control of other aspects of quality.

The presence of organic sulphur has been a limiting factor in the use of flueless appliances and is responsible for increased maintenance costs for water heaters, and its presence makes us more vulnerable to competition from sulphur-free liquid petroleum gases for certain industrial processes. It is now accepted that a minimum variation in the Wobbe Index should be aimed at. This again will help us in combating any claims for l.p.g. on the basis of constant quality.

Both these desiderata are likely to be achieved when we get our promised new sources of gas—imported methane and Lurgi gas; another highly desirable quality would then be attainable, non-toxic gas.

In the year ended March 31, 1961, the Board's sales to non-domestic consumers (excluding public lighting) was 180,671 mill., equal to 53.5% of our total sales.

One of the most consistently encouraging results in the North Western Gas Board's annual reports has been the steady increase in the sales of gas to industrial consumers. Since vesting it has increased by over 50%. Many factors account for this increase including:

1. The Board's industrial gas tariff policy.
2. The extension of the services of trained industrial engineers.
3. The excellent support given by manufacturers of industrial gas appliances.
4. The development work carried out by our own and other boards in improving and extending the application of gas for industrial purposes.

The main commercial use of gas is for catering. People who make their living by catering almost invariably cook by gas. We in this country can echo with our colleagues in the United States—'Where food is good, it is cooked by gas.' In Manchester as in London all the best hotels and restaurants use gas. The reasons are, of course, not far to seek—gas is reliable, easily controlled, infinitely flexible, gas appliances have low maintenance costs and they combine economy with cleanliness.

Space heating is another important load in both commercial and industrial premises. Frequently we use orthodox central heating systems from gas-fired central heating boilers, but frequently when circumstances are suitable we use overhead radiant heating. Such a method of heating is eminently suitable for large workshops or other such lofty buildings.

Cremation load

Another commercial load in which gas has had outstanding success is that of cremation—and the North Eastern Gas Board and the West Midlands Gas Board have each designed a cremator, and these two cremators, now being manufactured by furnace makers, are virtually sweeping the field so that almost every cremator being installed to-day is gas-fired.

Although domestic users represent 94% of the Board's consumers and account for 55% of the total gross income from gas sales they only account for 45.5% of the gas sold.

In the past few years domestic sales have tended to remain static or slightly decrease. There are many reasons for this including:

1. Rehousing of families from gas houses to estates or flats with no gas supplies.
2. Replacing old gas appliances with more efficient ones.
3. Reduction in amount of home cooking.
4. Reduction in use of gas wash boilers.

If we are to make good these losses a greater drive must be made for alternative loads and the obvious domestic load which is most desirable by virtue of its magnitude is that for space heating.

THE BRILLIANT

NEW WORLD

SUNBEAM

RADIANT/CONVECTOR GAS ROOM HEATER

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EXCLUSIVE
DRAUGHT REGULATOR

No other gas room heater offers this ingenious device which represents a real advance in technical design. The regulator, constructed of stainless steel, opens and closes automatically according to chimney pull and the high heating efficiency is maintained under all conditions. This obviates the need for a restrictor in the chimney flue which effects an appreciable saving in the fixing cost. Under conditions of strong chimney pull the efficiency of most other gas room heaters will drop 25% below that of the Sunbeam.

INCREASED HEATING CAPACITY

The Sunbeam has a rating of 36 cu. ft. per hour, with a low tap setting of approximately half this consumption. On the low tap setting the appearance remains bright and cheerful with an even glow over the entire surface of the radiant section.

AUTOMATIC IGNITION

Ignition is by a filament energised by a 1½ volt battery and a pilot, both of which cut off as the tap returns from the lighting position.

THERMOSTAT

For a small extra charge a thermostat can be fitted which is completely automatic in operation.

NEW WORLD A Radiation PRODUCT

NEWS SUPPLEMENT

LURGI PROCESS AND METHANE

SPEAKING during the debate on the report and accounts of the National Coal Board for last year, the Parliamentary Secretary to the Ministry of Power, Mr. J. C. George, answering points on the question of methane importation and the Lurgi process, said:

'This issue is one that must be decided on the facts when they are available. We do not yet know what the decision ought to be, but the study group is now operating.

'It is looking for a real basis for the adoption of the Lurgi process in this country.

'The gas industry is sincere in the part it is playing in this study group and is ready, if the facts which emerge show that Lurgi is the most economic system, to find a place for it in its development plans.

'But the industry must await the results of the study group and base its decisions on that report.'

Mrs. Lydia Dransfield, who worked with Mr. F. J. Bancroft on the Gas Council's house design contest and won two first prizes.

New West Midlands H.Q. model

A model of the West Midlands Gas Board new Solihull headquarters was built by the Chief Architect's Department of the Board. Inspecting the model are, left to right: Mr. N. Cooley (Board Architect); Mr. W. M. Ladbrooke (Senior Assistant Architect); Mr. W. Hyde (Director of Finance and Administration); and Mr. W. V. Olsson (Organisation and Methods Officer.) Above: A close-up of the model.

THE West Midlands Gas Board has approved a scheme for the erection of new headquarters at Solihull. The work will be put in hand at the earliest possible moment.

The new building, which will be in Wharf Lane, opposite the Midlands Research Station of the Gas Council, will house staff at present scattered in different premises over a wide area in and around Birmingham.

The cost will be less than half that of the Broad Street scheme, and the building will be completed in much less time.

The Solihull site also has room for a large open office, most of it on one floor, and the building will be planned to provide maximum efficiency with pleasant working conditions.

Although the cost has been cut drastically every effort will be made to provide one of the most up-to-date and best-equipped office buildings in the world and this, in turn will, it is hoped, lead to improved service for the Board's customers.

CAREER GRADES

Mr. F. C. Henfrey-Smith has pointed out that in his article 'B.G.S.A. pursues "fuel policy for U.K." plea' for our Annual Review Number, there was an error in his copy. He said that the Association was seeking a complete review of the salary scales 'to give career grades to suitable employees in the private sector of employment.'

As the Association is not concerned in the private sector, this sentence should have read 'to give career grades to suitable employees which will enable the gas industry to attract, in competition with banks, insurance, and many other good employers in the private sector'.

COMMERCIAL MANAGERS SEE RESEARCH

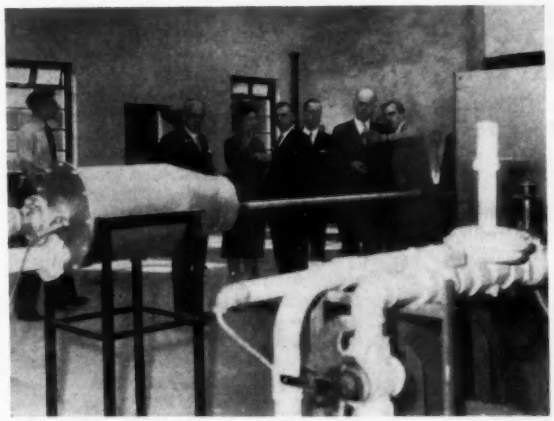
THE North Eastern Gas Board was host to the Commercial Managers' Committee of the Gas Council for the September meeting, which was held at the Devonshire Arms Hotel, near Bolton Abbey.

After the meeting, the members visited the newly-extended laboratories of the Board's Research and Development Centre at Bradford where Mr. R. H. Anderson, Industrial Gas Officer, showed them some of the current projects, one of which was an A.C.R.M. gas furnace in operation on the melting of aluminium and phosphor bronze.

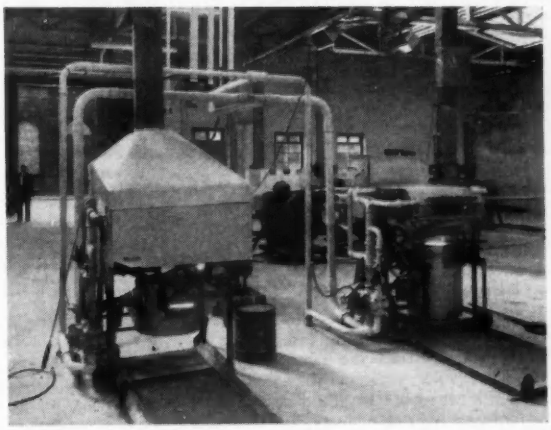
Demonstrations were given of fully automatic, large jet burners, which are used for the stress relieving of pressure vessels and for the pre-heating and drying out of large glass tank furnaces.

They also examined two types of control panels specially designed by the Research and Development Centre, one for use with warm air central heating furnaces and domestic hot water systems and the other for use with small bore central heating and hot water systems.

Mr. R. F. Hayman, Industrial Gas Officer, the Gas Council, and Mr. L. Andrew, director of Watson House, were also present.



Principles of a high velocity jet burner are explained to members of the Commercial Managers' Committee at the N.E.G.B. Research and Development Centre.



The A.C.R.M. gas furnace, which was shown to the Committee members.

THE INSTITUTION and Junior Associations

THE Leeds Group Sales Manager, Mr. A. J. Winter, is the new President of the Yorkshire Junior Gas Association in succession to Mr. J. Edgar, of Todmorden.

Mr. Winter was elected unanimously at the annual meeting, held at the headquarters of the North Eastern Gas Board, Bridge Street, Leeds, on Saturday.

It was also announced that Mr. F. Roberts, Bradford, is senior Vice-President, and Mr. J. Wilkinson, Sheffield, is Junior Vice-President.

Mr. Wilkinson was one of three members of the Council due to retire, but his elevation as Junior Vice-President left two Council members—Mr. F. C. Barker and Mr. O. G. A. Hoffman—eligible for re-election and Mr. Wilkinson's place to be filled.

A ballot of members returned Mr. F. C. Barker and Mr. O. G. A. Hoffman with Mr. R. Mason, latterly assistant secretary and treasurer, as Mr. Wilkinson's successor.

YORKSHIRE JUNIORS

There were no nominations for the District Education Committee or the County Advisory Committee, so Mr. E. S. Carter, Mr. E. C. Williams and Mr. F. Robson go forward on the Education Committee, and Mr. F. Robson and Mr. J. G. Gaunt to the County Advisory Committee.

The new President, Mr. Winter, invested Mr. Edgar with the past president's medallion, and Mr. G. C. Broome thanked Mr. Edgar and the retiring officers.

Presentations of awards were then made to:

Mr. Geoffrey Waite, assistant Works Manager, Birkshall, Bradford, the Clayton Gold Medal for his paper 'Some experiences with p.f.d. on c.w.g. plant.'

Mr. E. Keast and Mr. N. Halder, Assistant Engineers respectively at Neepsend and Carr House, Sheffield, the Clapham Silver Medals for their paper 'Some aspects of large-scale manufacture of cold, clean producer gas.'

Mr. J. C. Barwick, a director of Claphams, presented the awards to Mr. Halder, who undertook to pass on to Mr. Keast his medal. This paper also gained the award of the Society of British Gas Industries.

Mr. R. Skilbeck, Senior Technical Assistant, Huddersfield, the Firth Prize for the best short paper, 'Rodding control and trunk feeds.'

The Hon. Secretary, Mr. C. A. Roberts, presenting the 57th annual report made sympathetic references to the report on a successful year's work. The deaths of Mr. Alexander McDonald, Mr. T. A. Clapham and Mr. T. Pickthall.

The Council's proposed alteration to Rules 4a, 4c and 4d, which enables the Council in its discretion to accept as members of the association any members of professions engaged in the gas industry, was passed unanimously.

The meeting was attended by Mr. S. G. Deavin, Deputy Chairman of the North Eastern Gas Board, and Mr. N. C. Sturrock, Group General Manager, and when the routine business of the annual general meeting was completed, Mr. Deavin gave an address.

Mr. J. Wilkinson, Sheffield, thanked Dr. R. S. Edwards, Chairman of the Board, for facilities and hospitality to the association.

Self-help scheme for Gas Board pensioners

MORE than 500 pensioners of the North Western Gas Board are to benefit from a new Pensioners' Comfort Fund introduced in the Liverpool area following the success of a similar scheme which has been operating in Wirral for four-and-a-half years.

Mr. J. Castle, General Manager; Dr. C. O. Hughes, Board Medical Officer; and Senior Group Officers were present at a crowded meeting of pensioners in the Crane Theatre, Liverpool, at which the scheme was explained and the officials elected.

Mr. F. C. Searle, Superannuation and Pensions Assistant, who was the originator and organiser of the scheme, introduced the meeting and supervised the business of the day.

Voluntary contributions

The Pensioners' Comfort Fund works on a self-help basis. The pensioners contribute a voluntary sum of 3d. a week or 1s. 1d. a month into the fund and the Board contributes an equal amount.

A committee of pensioners meets weekly to consider needy cases and allocates money from the fund for small comforts such as provisions, coal and coke, or tobacco. In addition a rota of volunteers regularly visits the sick and lonely.

In an address of welcome Mr. Castle recalled the origin of the scheme. Photographs of Christmas parties in *Link-Up*, the Board's magazine, gave them the idea of holding a party, not for children but for pensioners. The response was enthusiastic, and it was arranged to transport some 150 pensioners to the first party.

In the course of the arrangements the organisers were bought face to face with the extreme loneliness and infirmity of some of the pensioners, and the idea of a Comforts Fund was born. The Christmas party is still held, but today it is also the annual general meeting of the Fund.

Chairman elected

Mr. G. Crowther, formerly of the Board's Liverpool Training and Education Department, who had 52 years' service in the industry, was unanimously elected Chairman of the Fund. He thanked the Board, and particularly Mr. Castle, for being 'parents' to the Fund and said that Mr. Searle had been an excellent 'midwife.'

Mr. Castle presented Mr. Crowther with a starting cheque for the Fund from the Board, and subsequently agreed to become the first President of the Mersey Group (Lancashire Area) Pensioners' Comforts Fund.

£188 mill. gas investments

IN the past five years £100 mill. has been invested by the gas industry in plant and machinery and £88 mill. on mains and services, the Chairman of the Gas Council, Sir Henry Jones, told the twelfth annual meeting luncheon in London of the Engineering Equipment Users' Association.

Sir Henry said the industry offered a very wide variety of equipment for industrial heating.

SHOWHOUSES USE GAS APPLIANCES

THE Central and Northern Division of the Scottish Gas Board used the latest in gas appliances to equip two showhouses in Ponderlaw Street, Arbroath. Warm air heating, small-bore central heating, home laundry, refrigeration by Gascold, cooking by Leisure and New World, and room heating by Debonair were included.

Provost D. A. Gardner opened houses at a function at which Mr. R. Owens, District Manager of the Dundee and Arbroath area, Scottish Gas Board, presided.

Following the opening, a luncheon was held in the Windmill Hotel, Arbroath. Mr. W. Nicol Baird, Divisional Manager, Scottish Gas Board, presided.

Another Arbroath event was a meeting of the Central District Committee of the Scottish Gas Consultative Council. Following the meeting, Sir Robert Nimmo, Chairman of the Council, commended gas-fired warm air installations in Council houses.

AUTOMATIC GASWORKS

KILSYTH gasworks has become entirely automatic. The installation is linked to the telephone service, and Kilsyth is claimed to be the first gasholder station in the country to use this type of equipment.

Information on the plant is obtained by dialling the number allocated to the equipment. If anything should go wrong, telephone signals are automatically passed to area headquarters.

GAS HEATS WATER FOR TEA

A section of the Ascot stand at the Modern Homes Exhibition, Glasgow. By mutual arrangement with the Ceylon Tea Centre, free tea was given to visitors. On the right of the photograph is Mr. G. N. Michie, Northern Sales Manager, Ascot Gas Water Heaters. He is receiving a cup of tea from Mrs. Dias, who had arrived in England only seven days previously.

PERSONAL NOTES

MR. W. M. PATERSON, distributing engineer of the South Eastern Gas Board's Sussex division has retired after 47 years in the gas industry. He has been succeeded by MR. D. H. F. BURCHELL, previously assistant distributing engineer in Sussex. Mr. Paterson began his gas industry career as technical assistant at the Tradeston works of the Glasgow Corporation Gas Department and in 1922 moved on to the mains and services department in Glasgow. The following year he was appointed distribution superintendent at Bath and in 1933 he went to the Brighton, Hove and Worthing Gas Company as assistant distributing engineer. The next year he became distributing engineer of this Company. At nationalisation Mr. Paterson was appointed distributing engineer for the South Eastern Gas Board's Sussex Division. Mr. Burchell joined the Brighton, Hove and Worthing Gas Company in 1935. He has been closely connected with distribution matters in Sussex since nationalisation and in 1956 he was appointed assistant distributing engineer. Mr. Burchell's successor is MR. A. J. R. SMITH. He received his early training in the Sussex Division and now returns there after experience as a technical assistant and field engineer in other parts of the Board's area.

MR. C. BALFOUR, who represented David Gran & Co. Ltd. from March, 1944, till June, 1956, when he took up an office post with Alder & Mackay Ltd. the parent Company, has retired. Since the integration of U.G.I. (Meters) Ltd. he filled an important post in the northern regional works at Edinburgh.

MR. R. GREAVES, M.B.E., General Manager of the South Lancashire Group of the North Western Gas Board, has been appointed a governor of the St. Helens Technical College. Mr. Greaves has been appointed as a representative of the chemical and allied industries.

MR. H. C. BAADSGAARD, sales director of Nu-Swift Ltd., has retired and resigned his directorships of Nu-Swift Ltd. and its associated companies. MR. F. TOMPKINS, a Director of Nu-Swift Ltd., has been appointed Home Sales Director.

MR. C. M. COHEN, Chairman and Managing Director of the George Cohen 600 Group Ltd., was recently presented by the Group's employees with a silver and enamel cigarette box to mark his 45 years of service with the Group.

MR. E. QUINTON HAZELL, M.B.E., of Deganwy, Caernarvonshire, has been appointed a part-time member of the Wales Gas Board.

DR. J. A. GRAY has been appointed Head of the new Basic Research Group which the Gas Council is establishing at its London Research Station at Fulham. Dr. Gray has been group leader of Physical Chemistry and Chemical Engineering at the Battelle Memorial Institute, Geneva, since 1958. The intention of the Basic Research Group is to provide the industry with the means of developing entirely new ideas for the production and utilisation of gas without being bound by short-term considerations, or the need to produce results to a definite programme. Although, for administration purposes, it will form part of the Council's London Research Station, the Basic Research Group will operate independently, and the Head of the Group, who will be a member of the Council's Research Committee, will exercise full control over the Group's scientific work.

MR. J. GARNETT has been appointed the Industrial Welfare Society's third director in its 43 years' existence. MR. J. MARSH, who in 1950 succeeded SIR ROBERT HYDE, the Society's founder and first director, earlier this year accepted an invitation to become director of the British Institute of Management. Mr. Garnett comes to the Industrial Welfare Society from Imperial Chemical Industries Ltd., where he is responsible for the Communications Section of the Central Labour Department at Head Office.

MR. F. BRIAN HOLMES, chairman and managing director of W. C. Holmes and Co., Ltd., retired from the position on October 31. He is succeeded as Managing Director by MR. A. J. M. HENSHAW.

COUNCILLOR R. S. DURRANT, of St. Albans, has been appointed a member of the Eastern Gas Consultative Council.

COUNCILLOR F. FOX, of Dewsbury has been appointed a member of the North Eastern Gas Consultative Council.

COMING EVENTS

November 8.—BRITISH INSTITUTE OF MANAGEMENT: Connaught Rooms, London. 7th Elbourne Memorial Lecture. 6.30 p.m.

November 10. — I.G.E., MANCHESTER AND DISTRICT SECTION: 'Natural Gas at Whitby,' by F. C. Barker.

November 10.—LONDON AND SOUTHERN JUNIORS: 'Maintenance of Gasworks Electrical Equipment,' by W. Shaw.

November 14. — EASTERN JUNIORS: Peterborough. Short paper competition.

TRADE NOTES

HENRY SYKES LTD., London, has appointed Scottish Land Development Corporation as agents for its pumps and other equipment, in Scotland and the four northern counties. There will be three main service centres—Glasgow, Fife and Newcastle—and Mr. A. K. G. Gilbertson, who is located at the Fife depot, is responsible for the over-all operation of the agency.

MATTHEWS AND YATES LTD., Swinton, Manchester, designers and manufacturers of fans and air treatment plant, have appointed four new assistant directors. They are: Mr. J. Barton; Mr. A. B. Crompton; Mr. G. L. Jaques; and Mr. L. Winstanley. All four men are old-established employees having been with Matthews and Yates for a number of years.

THE GOODYEAR TYRE & RUBBER CO. (GT. BRITAIN) LTD., recently announced changes in the framework of its Industrial Products Sales Division. The division, under its Manager, Mr. J. T. Pearson, has now been strengthened by the appointment of two Marketing Supervisors, Mr. W. R. Quick (Hose Products) and Mr. H. F. Escott (Belting Products). At the same time two additional Sales Engineers, Mr. C. Brown and Mr. P. Bedford, together with experienced senior staffmen, have been appointed to the division's Southern and Northern offices at London (46, Holloway Road, N.7) and at Manchester (24, Broughton Street) respectively.

NEWMARK INSTRUMENTS LTD., one of the Louis Newmark Group of Companies, announces a technological and manufacturing tie-up with the United States. This company recently signed an agreement with the Johnson-Williams Company of America in the field of gas instrumentation. Newmark Instruments Ltd., is to undertake the marketing, servicing and, at a later date, the manufacturing of the range of Johnson-Williams combustible gas indicators and alarms. A Gas Instrumentation Division has been formed within Newmark Instruments Ltd. Mr. A. M. G. Zuurbier, who has hitherto been handling the J-W equipment in this country, has joined the Division as Sales Manager.

HENRY WIGGIN AND CO. LTD., S.W.1, presented an exhibition at Londonderry House, London, W.1, from October 10-12, devised to illustrate the properties and uses of Wiggin corrosion-resisting alloys. It is the natural successor to the exhibition of Wiggin heat-resisting alloys, 'When it's really hot,' shown with great success in London and the provinces during 1959-60. The exhibition describes the different types of corrosion, how they arise, and gives information on factors affecting corrosion and the resistance of Wiggin materials to the more common corrosive substances.

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